

Product datasheet for RC202511

COX5B (NM_001862) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: COX5B (NM_001862) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: COX5B
Synonyms: COXVB
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202511 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTCAAGTTACTTCGCGGAGCTGGAACGCTGGCCGCGCAGGCCCTGAGGGCTCGCGGCCCCAGTG
GCGCGGCCGCGATGCGCTCCATGGCATCTGGAGGTGGTGTCCCACTGATGAAGAGCAGGCGACTGGTT
GGAGAGGAGATCATGCTGGCTGCAAAGAAGGGACTGGACCCATAACAATGTACTGGCCCCAAGGGAGCT
TCAGGCACCAGGGAAGACCCTAATTTAGTCCCCTCCATCTCCAACAAGAGAATAGTAGGCTGCATCTGTG
AAGAGGACAATACCAGCGTCGTCTGGTTTTGGCTGCACAAGGCGAGGCCAGCGATGCCCCGCTGTGG
AGCCATTACAAGCTGGTGCCCCAGCAGCTGGCACAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202511 protein sequence
Red=Cloning site Green=Tags(s)
MASRLLRGAGTLAAQALRARGPSGAAAMRSMASGGVPTDEEQATGLEREIMLAAKKGLDPYNVLAPKGA
SGTREDPNLVPSISNKRIIVGCICEEDNTSVVFWLHKGEAQRCPRCGAHYKLVPPQLAH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6410_e09.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_001862

ORF Size: 387 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001862.3](#)

RefSeq Size: 523 bp

RefSeq ORF: 390 bp

Locus ID: 1329

UniProt ID: [P10606](#)

Cytogenetics: 2q11.2

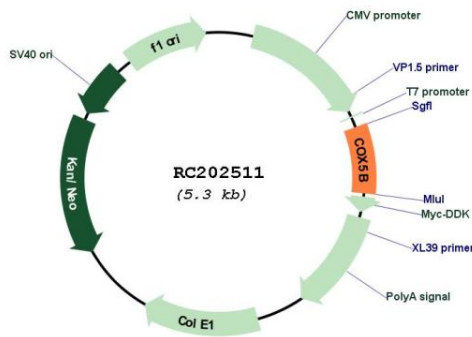
Domains: COX5B

Protein Pathways: Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

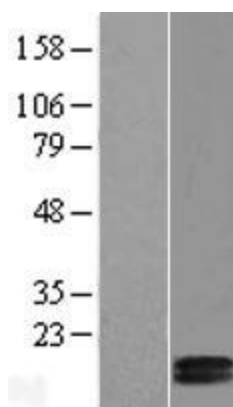
MW: 13.7 kDa

Gene Summary: Cytochrome C oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit Vb of the human mitochondrial respiratory chain enzyme. [provided by RefSeq, Jul 2008]

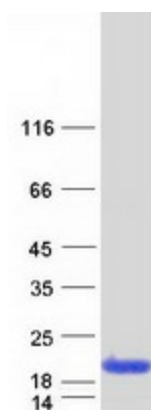
Product images:



Circular map for RC202511



Western blot validation of overexpression lysate (Cat# [LY419690]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202511 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified COX5B protein (Cat# [TP302511]). The protein was produced from HEK293T cells transfected with COX5B cDNA clone (Cat# RC202511) using MegaTran 2.0 (Cat# [TT210002]).